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EXAMINER
CORRIGAN, JAIME W

ART UNIT	PAPER NUMBER
3748	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/044,867

Applicant(s)

WATSON ET AL. 

Examiner

Jaime W Corrigan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-46 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-13, 15-22, 24-32, 34-41, 43-46 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☒ Claim(s) 4, 14, 23, 33 and 42 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

This application contains claims directed to the following patentably distinct species of the claimed invention:

The Species of Figure 3, the Species of Figures 4-6, the Species of Figure 7.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claims 1, 10, 19, 38 appear generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the

case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

During a telephone conversation with Dennis Sullivan on 10 April 2003 a provisional election was made without traverse to prosecute the invention of Figures 4-6, claims 1-3, 5-13, 15-22, 24-32, 34-41 43-46. Affirmation of this election must be made by applicant in replying to this Office action. Claims 4, 14, 23, 33, 42 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Objections

Claims 1, 10, 19, 38 are objected to because of the following informalities:

The word "fist" should be --first--. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 6-12, 15-22, 25-31, 34-40, 43-46 are rejected under 35 U.S.C. 102(b) as being anticipated by Paul et al. (PN 4,892,067).

Regarding claims 1, 10, 19, 38 Paul discloses an electrohydraulic actuator (See Figure 2 (100)) having a piston (See Figure 2 (132), (142)) being translatable responsive to an actuating fluid bearing on a piston surface (See Column 4 Lines 60-68), the piston surface being in fluid communication with an actuator valve (See Figure 2 (156)), the actuator valve being in selective fluid communication with a source (See Figure 2 (154)) of actuating fluid under pressure, the actuator valve (See Column 5 Lines 3-30) being shiftable to selectively port and vent actuating fluid to and from the piston surface; and a rocker arm (See Figure 2 (124)) being rotatable about a hinge point (See Figure 2 (Not numbered but clearly visible)), a first arm portion extending from the hinge point to a proximal end (See Figure 2 (Rocker shaft to (128))) and a second arm portion extending from the hinge point to a distal end (See Figure 2 (Rocker shaft to (122))), the proximal end being operably coupled to the piston (See Figure 2 (132), (142), (Rocker shaft to (128))) and the distal end being operably coupled to the valve (See Figure 2 (Rocker shaft to (122), (106))), the first arm portion being shorter (See Figure 2 (124)) than the second arm portion.

Regarding claims 2, 11, 21, 30, 39 Paul discloses the electrohydraulic actuator (See Figure 2 (156)) being displaced laterally from a valve longitudinal axis (See Figure 2 (106)).

Regarding claims 3, 12, 22, 31, 40 Paul discloses the actuator valve (See Figure 2 (156)) being actuated by at least one solenoid (See Figure 2 (158)).

Regarding claims 6, 15, 25, 34, 43 Paul discloses the source of actuating fluid under pressure being a high pressure rail (See Figure 2 (154), Column 5 Lines 3-5).

Regarding claims 7, 16, 26, 35, 44 Paul discloses the actuating fluid being engine lubricating oil (See Column 5 Lines 19-30).

Regarding claims 8, 17, 27, 36, 45 Paul discloses a hydraulic adjust mechanism (See Figure 2 (133), being disposed intermediate the electrohydraulic actuator piston (See Figure 2 (132), (142)) and the rocker arm (See Figure 2 (124)).

Regarding claims 9, 18, 28, 37, 46 Paul discloses the actuator valve being in selective fluid communication with a reservoir at substantially ambient pressure (See Figure 2 (154), Column 5 Lines 3-5).

Regarding claim 20 Paul discloses the electrohydraulic actuator (See Figure 2 (100)) having a piston (See Figure 2 (132), (142)) being translatable responsive to an actuating fluid bearing on a piston surface (See Column 4 Lines 60-68), the piston surface being in fluid communication with an actuator valve (See Figure 2 (156)), the actuator valve being in selective fluid communication with a source (See Figure 2 (154)) of actuating fluid under pressure, the actuator valve being shiftable to selectively port and vent (See Column 5 Lines 3-30) actuating fluid to and from the piston surface.

Regarding claim 29 Paul discloses the hydraulically actuated servomechanism (See Figure 2 (100)) having an actuator valve (See Figure 2 (156)) and a drive piston (See Figure 2 (132), (142)), motion of the actuator valve relative to the drive piston acting to open and close certain orifices (See Figure 2 (148), (154), Column 4 Lines 60-68, Column 5 Lines 1-30) for controlling fluid acting on the drive piston.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5, 13, 24, 32, 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Paul et al. (PN 4,892,067) in view of Wride (PN 4,901,684).

Paul discloses the invention as recited in claims 1, 10, 19, 38 above and further discloses the actuator valve being actuated by a first solenoid (See Figure 2 (158)).

Paul fails to disclose an opposed spring.

Wride teaches that it is conventional in the art to utilize the actuator valve (See Figure 1 (8)) being actuated by an opposed spring (See Figure 1 (21')).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have utilized the opposed spring taught by Wride in the Paul device since it would help maintain control of the actuator valve.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Wride (PN 4,502,425), Perr (PN 5,002,022), Vorih et al. (PN 5,829,397) disclose similar valve actuator assemblies.


Any inquiry concerning this communication from the examiner should be directed to Examiner Jaime Corrigan whose telephone number is (703) 308-2639. The examiner can normally be reached on Monday - Friday from 8:30 a.m. – 6:00 p.m. 2nd Friday off.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion, can be reached on (703) 308-2623. The fax number for this group is (703) 872-9302. After Final (703) 872-9303.


Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0861.

JC

Jaime Corrigan

Patent Examiner

May 29, 2003

Art Unit 3748


THOMAS DENION
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700